**From:** Jon Rauscher
**To:** Eric Delgado
**Cc:** Christopher Ruhl; Marc Greenberg; Matthew Loesel; Paige Delgado; Philip Turner; R6 DWH REOC ESC@EPA; Valmichael Leos
**Subject:** Re: TPH and hydrocarbon test kits
**Date:** 05/29/2010 11:04 AM

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Your choice. Was asked to look into test kits and am just reporting out on what I found about test kits.

▼ Re: TPH and hydrocarbon test kits

## Re: TPH and hydrocarbon test kits

**Eric Delgado** to: Jon Rauscher 05/28/2010 08:54 PM

Cc: Christopher Ruhl, Marc Greenberg, Matthew Loesel, Paige Delgado, Philip Turner, R6 DWH REOC ESC, Valmichael Leos

I'm very familiar with the immunoassay procedure. I utilized a similar test at the SESCO removal and do not feel that performing the analysis on the types of boats that would be used on the near shore assessment would be a good field decision. Chris and Paige worked on thy project and would most likely agree.

Eric Delgado
Federal On-Scene Coordinator
US EPA Region 6
1445 Ross Ave (6SF-PR)
Suite 1200
Dallas, TX 75202
214-437-9809

-----Jon Rauscher/R6/USEPA/US wrote: -----

==========
To: Eric Delgado/R6/USEPA/US@EPA
From: Jon Rauscher/R6/USEPA/US
Date: 05/28/2010 07:00PM
Cc: Marc Greenberg/ERT/R2/USEPA/US@EPA, Matthew Loesel/R6/USEPA/US@EPA, Paige Delgado/R6/USEPA/US@EPA, Philip Turner/R6/USEPA/US@EPA, R6 DWH REOC ESC@EPA, Valmichael Leos/R6/USEPA/US@EPA
Subject: Re: TPH and hydrocarbon test kits
==========

Depends on the boat. The boat will have to have a power hookup. If the boat has a DC electrical power (cigarette lighter), a DC/AC power convert could be used to provide a 110 volt electrical power supply. Greenberg and I have done fieldwork over last few years where we used an inverter to recharge batteries for hand drills, run a printer, and charge a notebook computer. Running the spectrophotometer in the field

kit should not be a problem.

The information states that an operator with minimum chemistry skills can be trained to conduct the test. The reagents are dispensed using an Eppendorf Repeater Pipettor. The pipette dispenses a measured volume by pressing one button. Pipetting on a boat would be a little challenging but not impossible.

From: Eric Delgado/R6/USEPA/US
To: Marc Greenberg/ERT/R2/USEPA/US@EPA
Cc: Jon Rauscher/R6/USEPA/US@EPA, Matthew Loesel/R6/USEPA/US@EPA, Paige Delgado/R6/USEPA/US@EPA, Philip Turner/R6/USEPA/US@EPA, R6 DWH REOC ESC@EPA, Valmichael Leos/R6/USEPA/US@EPA
Date: 05/28/2010 06:15 PM
Subject: Re: TPH and hydrocarbon test kits

but do they work on a boat?

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-----Marc Greenberg/ERT/R2/USEPA/US wrote: -----

==========
To: Jon Rauscher/R6/USEPA/US@EPA
From: Marc Greenberg/ERT/R2/USEPA/US
Date: 05/28/2010 02:25PM
Cc: Eric Delgado/R6/USEPA/US@EPA, Matthew Loesel/R6/USEPA/US@EPA, Paige Delgado/R6/USEPA/US@EPA, Philip Turner/R6/USEPA/US@EPA, R6 DWH REOC ESC@EPA, Valmichael Leos/R6/USEPA/US@EPA
Subject: Re: TPH and hydrocarbon test kits
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Jon,

For what it's worth, I agree with your assessment below. Additionally, I have been involved on projects where our technicians used RaPID Assay Kits. They worked well.

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From: Jon Rauscher/R6/USEPA/US
To: Matthew Loesel/R6/USEPA/US@EPA, Valmichael Leos/R6/USEPA/US@EPA, Paige Delgado/R6/USEPA/US@EPA, Eric Delgado/R6/USEPA/US@EPA
Cc: Philip Turner/R6/USEPA/US@EPA, Marc Greenberg/ERT/R2/USEPA/US@EPA, R6 DWH REOC ESC@EPA
Date: 05/28/2010 12:21 PM
Subject: TPH and hydrocarbon test kits

The enzyme linked immunosorbant assays (ELISA) test kits appear

to be the most promising field analysis. The colorimetric test kits using the Friedel-Crafts reaction (e.g., Hanby Test Kit) receive poor evaluations and do not appear to be promising for field analysis.

The ELISA test kit that received good evaluations is the SDI BTEX/TPH RaPID Assay Kits. The limitations of the RaPID kits is the need for electrical power (120 volt) and is the inability to differentiate between BTEX and related compounds.

[attachment "RaPID ASSAY t00102.pdf" deleted by Marc Greenberg/ERT/R2/USEPA/US] [attachment "CTPN200525_RaPID BTEXandTPH.pdf" deleted by Marc Greenberg/ERT/R2/USEPA/US]

[attachment(s) "RaPID Assay User Guide.pdf" removed by Eric Delgado/R6/USEPA/US]